03-24-00

PCT

410 Rec'd PCT/PTO 23 MAR 2000

FORM PTO-1390 (REV. 5-93)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY'S DOCKET NUMBER
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)		1950/0G777
INTERNATIONAL APPLICATION NO. PCT/EP98/07385	INTERNATIONAL FILING DATE 17 November 1998	PRIORITY DATE CLAIMED 20 November 1997

09/509316

TITLE OF INVENTION

DEVICE AND METHOD FOR DETERMINING IMAGE MODIFICATION VALUES

APPLICANT(S) FOR DO/EO/US

Wolfgang KEUPP, Günter FINDEIS and Manfred FÜRSICH

Applicant herewith submits to the United States Designated/Elected office (DO/EO/US) the following items and other information:

1. [X] This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.

2. [] This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S. C. 371.

3. [] This is an express request to begin national examination procedures (35 U.S.C. 371 (f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S. C. 371 (b) and PCT Articles 22 and 39 (1).

4. [X] A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.

5. [X] A copy of the International Application as filed (35 U.S. C. 371 (c) (2))
   a. [] is transmitted herewith (required only if not transmitted by the International Bureau).
   b. [X] has been transmitted by the International Bureau
   c. [] is not required, as the application was filed in the United States Receiving Office (RO/US)

6. [X] A translation of the International Application into English (35 U.S. C. 371 (c)2)).

7. [] Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
   a. [] are transmitted herewith (required only if not transmitted by the International Bureau).
   b. [] have been transmitted by the International Bureau.
   c. [] have not been made; however, the time limit for making such amendments has NOT expired.
   d. [] have not been made and will not be made.

8. [] A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c) (3)).

9. [X] An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).

10. [X] A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. [] An Information Disclosure Statement under 37 CFR 1.79 and 1.98 (with 17 references).

12. [X] An assignment document for recording. A **separate** cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.

13. [X] A FIRST preliminary amendment.
    [] A SECOND or SUBSEQUENT preliminary amendment.

14. [] A substitute specification.

15. [] A change of power of attorney an/or address letter.

16. [X] Other items or information: Replacement Sheet and Verification of Translation.

EXPRESS MAIL CERTIFICATE
3/23/00 Label No. EL 503341047
Date
I hereby certify that, on the date indicated above I deposited this paper or fee with the U.S. Postal Service & that it was addressed for delivery to the Commissioner of Patents & Trademarks, Washington, D.C. 20231 by "Express Mail Post Office to Addressee" service.

D Beck
Name (Print)

Signature

430 Rec'd PCT/PTO 23 MAR 2000

U.S. APPLICATION NO. (if known, see 37 C.F.R. 1.5) 09/509316	INTERNATIONAL APPLICATION NO.: PCT/EP98/07385	Attorney's Docket Number 1950/0G777

17. [x] The following fees are submitted:		CALCULATIONS	PTO USE ONLY
Basic National Fee (37 CFR 1.492 (a)(1)-(5)): Search Report has been prepared by the EPO [X] or JPO []	**$930.00**		
International preliminary examination fee paid to USPTO (37 CFR 1.482)	**$720.00**		
No international preliminary examination fee paid to USPTO(37 CFR 4.482) but international search fee paid to USPTO (37 CFR 1.445 (a) (2)...	**$790.00**		
Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO.....	**$1,070.00**		
International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4).....	**$98.00**	$930.00	

Surcharge of $130.00 for furnishing the oath or declaration later than []20 []30 months from the earliest claimed priority date (37 CFR 1.492(e)).			**ENTER APPROPRIATE BASIC FEE AMOUNT =**		
Claims	Number Filed	Number Extra	Rate		
Total Claims	- 20	0	0 X $22.00	$0.00	
Independent Claims	- 3 =	0	0 X $80.00	$0.00	
Multiple dependent claims(s) (if applicable)		+240		$	
			TOTAL OF ABOVE CALCULATIONS =	$930.00	
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also be filed. (Note 37 CFR 1.9, 1.27, 1.28).				$	
			SUBTOTAL =	$930.00	
Processing fee of **$130.00** for furnishing the English translation later the [] 20 [] 39 months from the earliest claimed priority date (37 CFR 1.492(f)).			+	$	
			TOTAL NATIONAL FEE =	$930.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). the assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **$40.00** per property			+	$40.00	
			TOTAL FEES ENCLOSED =	$970.00	
				Amount to be refunded	$
				charged	$

a. [X] A check in the amount of $970.00 to cover the above fees is enclosed.

b. [] Please charge my Deposit Account No.04-0100 in the amount of $ to cover the above fees.

c. [X] The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 04-0100. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:
Christa Hildebrand
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New York, New York 10022-7513

SIGNATURE Christa Hildebrand

NAME Christa Hildebrand

REGISTRATION NO. 34,953

EXPRESS MAIL CERTIFICATE
Date 3/23/00 Label No. EL 503341047
I hereby certify that, on the date indicated above I deposited this paper or fee with the U.S. Postal Service and that it was addressed for delivery to the Commissioner of Patents & Trademarks, Washington, DC 20231 by "Express Mail Post Office to Addressee" service.

D B Teck D B Teck

Name (Print) Signature

PLEASE CHARGE ANY DEFICIENCY UP TO $300.00 OR CREDIT ANY EXCESS IN **FUTURE** FEES DUE WITH RESPECT TO THIS APPLICATION TO OUR DEPOSIT ACCOUNT NO. 04-0100

DARBY & DARBY P.C.
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New York, New York 10022
212-527-7700

File No: 1950/0G777

In Re Application of:

Wolfgang KEUPP, Günter FINDEIS and Manfred FÜRSICH

Serial No.: T.B.A. Group Art Unit:
(U.S. National Phase of International Application No. PCT/DE98/07385

Filed: Concurrently herewith Examiner:

FOR: **DEVICE AND METHOD FOR DETERMINING IMAGE MODIFICATION VALUES**

PRELIMINARY AMENDMENT

Hon. Commissioner of
Patents and Trademarks
Washington, DC 20231

Sir:

Please preliminarily amend the above identified application as follows:

IN THE TITLE:

Please substitute the title for a new, more descriptive title --APPARATUS AND METHOD FOR DETERMINING IMAGE CORRECTION VALUES FOR PRINTING AN IMAGE ACQUIRED WITH A DIGITAL CAMERA AND DEVICE FOR PRINTING AN IMAGE ON PRINTING MATERIAL--;

IN THE SPECIFICATION:

On page 1, after the title, please insert

--BACKGROUND OF THE INVENTION

1. Field of the Invention--

On page 1, line 8.

--2. Description of the Related Art--;

On page 2, delete lines 12 and 13 and insert

--**SUMMARY OF THE INVENTION**--;

On page 4, line 12, insert

--Other objects and features of the present invention will become apparent from the following detailed description considered in conjunction with the accompanying drawings. It is to be understood, however, that the drawings are intended solely for purposes of illustration and not as a definition of the limits of the invention, for which reference should be made to the appended claims.

BRIEF DESCRIPTION OF THE DRAWING-- ;

On page 4, line 19, insert

--**DETAILED DESCRIPTION OF THE PRESENTLY PREFERRED EMBODIMENTS**--;

On page 7, line 10, insert

--Thus, while there have been shown and described and pointed out fundamental novel features of the invention as applied to a preferred embodiment thereof, it will be understood that various omissions and substitutions and changes in the form and details of the devices illustrated, and in their operation, may be made by those skilled in the art without departing from the spirit of the invention. For example, it is expressly intended that all combinations of those elements and/or method steps which perform substantially the same function in substantially the same way to achieve the same results are within the scope of the invention. Substitutions of elements from one described embodiment to another are also fully intended and contemplated. It is also to be understood that the drawings are not necessarily drawn to scale but that they are merely conceptual in nature. It is the intention, therefore, to be limited only as indicated by the scope of the claims appended hereto.--;

On page 10, delete "SUMMARY" and substitute therefor -- **ABSTRAC**T--.

IN THE CLAIMS:

Please cancel claims 1-7 and add new claims 8-14:

8. (New) A device for determining image correction values for printing on printing material an image acquired by a digital camera, with

identification means (EP, CR) for identifying the type (KT1, ... , KTn) of the digital camera which acquired the image to be printed; and

a control device (CR) for determining the image correction values as a function of the identified type (KT1, ... , KTn) of the digital camera, wherein the identification means (EP, CR) are implemented in such a way that image data can be evaluated from at least one of the images which is to be printed.

9. (New) The device according to claim 8, wherein the identification means (EP, CR) are constructed in such a way that information which includes the type (KT1, ... , KTn) of the digital camera can be captured.

10. (New) The device according to claim 9, wherein the identification means (EP, CR) are constructed in such a way that image data of at least one image to be printed can be evaluated.

11. (New) The device according to claim 10, wherein

a memory device (SP2) for storing several print data sets (GD1, ... , GDn) which include different image correction values for printing the images, wherein different types (KT1, ... , KTn) of digital cameras are associated with the print data sets (GD1, ... , Gdn); and wherein

the control device (CR) is designed so that the print data set associated with the identified type

(KT1, ... , KTn) of the digital camera can be selected by associating the type (KT1, ... , KTn) of the digital cameras with the print data sets (GD1, ... , GDn), and the image correction values of the associated print data set can be determined.

12. (New) The device according to claim 8, wherein information identifying the type (KT1, ... , KTn) of the digital camera is hidden in the other captured data by a steganographic method and the identification means (EP, CR) can recognize the information in the other captured data using a steganographic method.

13. (New) An apparatus for printing an image on printing material, the apparatus including a device for determining image correction values for printing on printing material an image acquired by a digital camera, with

identification means (EP, CR) for identifying the type (KT1, ... , KTn) of the digital camera which acquired the image to be printed; and

a control device (CR) for determining the image correction values as a function of the identified type (KT1, ... , KTn) of the digital camera.

14. (New) A method for determining image correction values for printing on printing material an image acquired by a digital camera, the method comprising the steps of

identifying the type (KT1, ... , KTn) of the digital camera which acquired the image to be printed;

determining the image correction values as a function of the identified type (KT1, ... , KTn)

of the digital camera, and wherein identifying the type (KT1, ... , KTn) of the digital camera is accomplished by evaluating the image data from at least one of the images which is to be printed.

REMARKS

This Preliminary Amendment has been made to place proper headings in the specification.

An early and favorable action on the merits is respectfully requested.

Respectfully submitted,

Christa Hildebrand
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Attorney for Applicant

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APPARATUS AND METHOD FOR DETERMINING IMAGE CORRECTION VALUES FOR PRINTING AN IMAGE ACQUIRED WITH A DIGITAL CAMERA AND DEVICE FOR PRINTING AN IMAGE ON PRINTING MATERIAL

The present invention relates to an apparatus and a method for determining image correction values for printing an image acquired with a digital camera and device for printing an image on printing material.

A large number of digital cameras of various designs and including different components are commercially available. More particularly, the different digital cameras include different image acquisition sensors which converts light into electrical signals. These image acquisition sensors have different characteristics, in particular different spectral sensitivity. For this reason, the color rendition and density representation of the images acquired by the different digital cameras is different.

The images acquired by the digital cameras are converted by the image acquisition sensors to digital image data which are stored in a memory device. Such a memory device can be, for example, a chip card. The image acquisition sensors in digital cameras are mostly in the form of so-called CCD (charge coupled devices) image sensors.

It is desirable to transfer the image data which are produced by the digital camera and represent the acquired images to a device capable of printing the acquired images. Such a printing device can be, for example, a so-called photo printer, a so-called mini lab or a printer controlled by a computer. The printing device produces from the acquired images prints on photographic paper, on printer paper or another printing material. The term "printing" is therefore to be understood as a general term for reproducing the acquired images on any type of printing material.

Due to the different characteristics of the components used in the various digital cameras, in particular the characteristics of the image acquisition sensors, unwanted color and density distortions can occur when the acquired images are printed on photographic paper or on other printing materials. A specific object captured by different digital cameras can therefore be reproduced differently on these prints.

It is therefore an object of the present invention to provide on printing materials an accurate and true reproduction of the images acquired with digital cameras.

This object is solved by the invention with the technical teachings of claims 1, 6 or 7.

According to the invention, the camera type, which is used to acquire an image to be printed, can be identified. The term "camera type" refers here to the physical components and the technical performance of the respective digital camera. The term "camera type", however, does not refer to the name or label under which the respective camera is sold commercially. It may be possible that a manufacturer of a digital camera changes the components or technical specification of the camera without also changing the commercial name or label. On the other hand, digital cameras having the same technical features and physical components may be available commercially under different labels.

The color and/or density response function of a specific type of digital camera with respect to the printed images can be taken into account by determining the image correction values as a function of the specific digital camera type. The image correction values can be, for example, characteristic preset values for a color and/or density setting, for the gradation and/or image manipulation. For example, an exposure station used for final prints of the recorded images on the printing material, may use a color transformation table, a so-called 3-D

lookup table.

Information about the type of the digital camera which acquired the image to be developed can be easily transmitted to be apparatus of the invention. This information is acquired by the apparatus of the invention. The apparatus of the invention can use this information to directly access a respective print data set. With the identification means implemented in this manner, the information specifying the type of the digital camera should be explicitly and clearly specified and preset.

The identification means can also be adapted to evaluate image data of at least one image to be printed. This evaluation can be limited to identifying the resolution or the color saturation of the acquired image or the type of formatting or compression of the data set. A complete evaluation of the image data which would be required to independently generate image correction values, is not required in this case. The type of the digital camera can thereby advantageously be identified quickly and unambiguously without knowing the camera specifications in advance.

According to another particularly advantageous embodiment of the invention, several print data sets which contain the image correction values for printing the images, are stored in a memory device. The print data sets are associated with predetermined types of digital cameras. The apparatus of the invention is capable of recognizing from the data transferred to the apparatus the type of the digital camera that acquired the image. The print data set for a specific camera can thereby be selected in response to the identified camera type.

According to yet another advantageous embodiment of the apparatus of the invention, the information containing the type of the digital camera is a hidden by a steganographic method in other captured data. The identification means can also use a steganographic method to identify the information containing the camera type. In this way, existing formats used for transmitting, storing

and processing of image data can advantageously be retained.

The apparatus of the invention for determining image correction values can advantageously be directly integrated in a device which prints the image on the printing material. Alternatively, the apparatus can also be implemented separately from the actual printing device which prints the image on the printing material based on the data transmitted to the printing device. This may be the case, for example, when a computer running suitable application programs is used to determine the image correction values and a printer connected to this computer prints the image based on the data transmitted by the computer.

The invention and its advantages will be described hereinafter with reference to a specific embodiment and the drawing.

The only Figure shows an embodiment of an apparatus according to the invention for determining image correction values for printing an image acquired with a digital camera.

The Figure shows the embodiment of an apparatus for printing images on printing material which in the present example is a so-called photo printer PR and includes an apparatus according to the invention for determining the image correction values for printing an image acquired with a digital camera. The Figure shows a portion of the printer PR, which includes a control device CR for controlling the functions which can be executed by the printer PR. A plurality of data sets DS1 to DSn is stored in a first memory device SP1. The data sets DS1 to DSn include image data generated by a digital camera during the image acquisition. Each of the data sets DS1 to DSn includes image data of a respective one of the acquired images. The printer includes a receiver EP which is capable of receiving data and/or signals of any kind. The receiver EP can read a memory device, for example chip cards.

The printer PR includes a second memory device SP2 which stores different print data sets GD1 to GDn. These print data sets GD1 to GDn include image correction values for printing the images to photographic paper. More particularly, the image correction values contain information about the color and/or density settings to be used for printing the images on the photographic paper. The print data sets GD1 to GDn are associated with different camera types KT1 to KTn. The term "camera type" here refers to the technical specifications and the physical components of the respective digital camera. In the exemplary embodiment, the print data set GD1 is associated, for example, with the camera type KT1, the print data set GD2 with the camera type KTi and the print data set GDn with the camera type KTn.

The image correction values contained in the different print data sets GD1 to GDn are specifically matched to the respective camera types. The image correction values include the known characteristics of the different camera types. These characteristics are determined - before the of the printer PR is operated - by a calibration process wherein several digital cameras of the same type are measured to determine the specific physical and electronic properties of this camera type. The characteristics of the camera type can, for example, produce color and/or density deviations in the acquired image, so that an image with a color cast or with saturated colors would be produced when printed on the particular printing material. The image correction values required for the respective camera type can be determined from the measured specific physical and electronic properties for this camera type and combined in a print data set. The print data sets GD1 to GDn advantageously have a fixed preset value which does not change during the operation of the apparatus of the invention.

The receiver EP can receive detailed information about the type of the digital camera used to acquire the image to be printed. Since the information about the camera type is unambiguous, it can be matched directly with the stored print data sets GD1 to GDn. The data set DS1 to DSn with the image data of the image to be printed can already include the information about the camera

type. The information about the camera type can be determined by the control device CR, and the associated print data set stored in the second memory device SP2 can be selected. The exposure station subsequently uses the image correction values included in the selected print data set to produce the prints.

By applying a steganographic method, the information about the digital camera type is hidden in the other acquired image data which are included in the data sets DS1 to DSn, and can be identified by the control device CR also using a steganographic method. Steganographic methods are described, for example, in the article "Hinters Licht geführt" by J. Rink in the journal c't, 1997, vol. 6, pp. 330-336.

If such information about the camera type is not explicitly transmitted to the printer PR, then alternatively one of the data sets DS1 to DSn stored in the first memory device SP1 can be evaluated, so that the camera type used to acquire the respective picture can be identified from the image data stored in this data set. Each digital camera has certain characteristics with respect, for example, the resolution or the color saturation of the recorded images. In addition, each digital camera formats and compresses the generated image data in a particular manner. For determining the camera type, it is therefore sufficient to evaluate, for example, the format of the image data of the image to be printed. The actual contents of the image to be printed need not be evaluated. To determine the camera type more reliably, the format or other characteristic features of several data sets may be evaluated.

The device PR of the invention has a bus BUS for transmitting data within the device PR, with the components being connected to the device PR via bi-directional data transmission lines.

The control device CR subsequently uses the determined image correction values which are specific for the digital camera and combined in the selected

print data set, to determine image-specific color print values for printing the respective image on the printing material. The individual color print values are then transmitted to an exposure station (not shown) which produces a print of the acquired image on photographic paper based on the color print values. The determination of the individual color print values for each image to be printed is not a part of the invention. The color print values can be determined, for example, by a method used for determining color print values for printing photographic masters on photographic paper, as described in the German patent DE-PS 28 40 287.

Claims

1. Device for determining image correction values for printing on printing material an image acquired by a digital camera, with

- identification means (EP, CR) for identifying the type (KT1, ... , KTn) of the digital camera which acquired the image to be printed, and

- a control device (CR) for determining the image correction values as a function of the identified type (KT1, ... , KTn) of the digital camera.

2. The device according to claim 1, characterized in that the identification means (EP, CR) are constructed in such a way that information which includes the type (KT1, ... , KTn) of the digital camera can be captured.

3. The device according to claim 1 or 2, characterized in that the identification means (EP, CR) are constructed in such a way that image data of at least one image to be printed can be evaluated.

4. The device according to claim 1 or 3, characterized by

- a memory device (SP2) for storing several print data sets (GD1, ... , GDn) which include different image correction values for printing the images, wherein different types (KT1, ... , KTn) of digital cameras are associated with the print data sets (GD1, ... , GDn), wherein

- the control device (CR) is designed so that the print data set associated with the identified type (KT1, ... , KTn) of the digital camera can be selected by associating the type (KT1, ... , KTn) of the digital cameras with the print data sets (GD1, ... , GDn), and the image correction values of the associated print data set can be determined.

5. The device according to claim 2, characterized in that the information identifying the type (KT1, ... , KTn) of the digital camera is hidden in the other

captured data by a steganographic method and the identification means (EP, CR) can recognize the information in the other captured data using a steganographic method.

6. Apparatus for printing an image on printing material, the apparatus including a device according to one of the claims 1-5.

7. Method for determining image correction values for printing on printing material an image acquired by a digital camera with the following steps:

- identifying the type (KT1, ... , KTn) of the digital camera which acquired the image to be printed, and

- determining the image correction values as a function of the identified type (KT1, ... , KTn) of the digital camera.

Summary

A device (PR) and a method is proposed for determining image correction values for printing on printing material an image acquired with a digital camera. The type (KT1, ... , KTn) of the digital camera, which acquired the image to be printed, is identified. The image correction values for printing the image are determined as a function of the identified type (KT1, ... , KTn) of the digital camera.

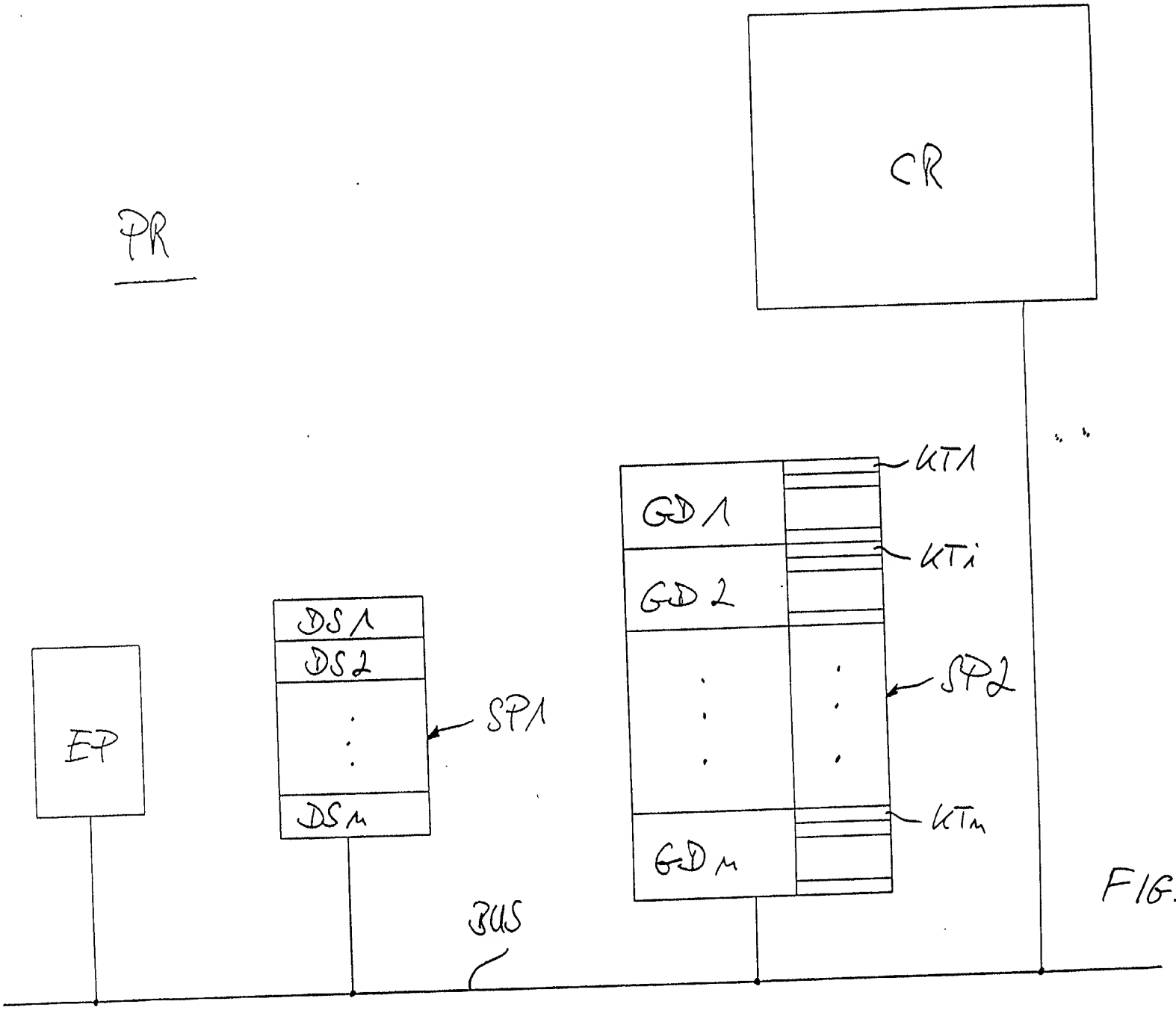

FIG. 1

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY
(Includes Reference to PCT International Applications)

ATTORNEY DOCKET NUMBER
1950/0G777

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed for and which a patent is sought on the invention entitled:

DEVICE AND METHOD FOR DETERMINING IMAGE MODIFICATION VALUES
the specification of which (check only one item below):

[ ] is attached hereto.

[ ] was filed as United States application

Serial No. _____

on _____

and was amended

on _____ (if applicable).

[X] was filed as PCT international application

Number PCT/DE98/07385

on November 17, 1998

and was amended under PCT Article 19

on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:

COUNTRY (if PCT indicate PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U S C. 119
GERMANY	197 51 465.0	20 November 1997	[X] YES [ ] NO
PCT	PCT/DE98/07385	17 November 1998	[] YES [X] NO
			[ ] YES [] NO
			[ ] YES [ ] NO

Combined Declaration for Patent Application and Power of Attorney (Continued) (Includes Reference to PCT International Applications)	ATTY'S DOCKET NUMBER 1993/0G777

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:

U.S APPLICATIONS		STATUS (Check one)		
U.S APPLICATION NUMBER	U.S. FILING DATE	PATENTED	PENDING	ABANDONED

PCT APPLICATIONS DESIGNATING THE U.S.					
PCT APPLICATION NO	PCT FILING DATE	U S SERIAL NUMBER ASSIGNED (if any)			

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. Gordon D. Coplein #19,165, William F. Dudine, Jr. #20,569, Michael J. Sweedler #19,937, S. Peter Ludwig #25,351, Paul Fields #20,298, Joseph B. Lerch #26,936, Melvin C. Garner #26,272, Ethan Horwitz #27,646, Beverly B. Goodwin #28,417, Adda C. Gogoris #29,714, Martin E. Goldstein #20,869, Bert J. Lewen 19,407, Henry Sternberg #22,408, Peter C. Schechter #31,662, Robert Schaffer #31,194, Robert C. Sullivan, Jr. #30,499, and Joseph R. Robinson #33,448, Chista Hildebrand #34,953

Send Correspondence to:	Direct Telephone Calls to: (name and telephone number)
Christa Hildebrand, Esq. DARBY & DARBY P.C. 805 Third Avenue New York, New York 10022-7513	(212) 527-7700

2	FULL NAME OF INVENTOR	FAMILY NAME KEUPP	FIRST GIVEN NAME Wolfgang	SECOND GIVEN NAME
0	RESIDENCE & CITIZENSHIP	CITY D-81549 MÜNCHEN	STATE OR FOREIGN COUNTRY GERMANY	COUNTRY OF CITIZENSHIP GERMAN
1	POST OFFICE ADDRESS	POST OFFICE ADDRESS LANGBÜRGENER	CITY D-81549 MÜNCHEN	STATE & ZIP CODE/COUNTRY GERMANY
2	FULL NAME OF INVENTOR	FAMILY NAME FINDEIS	FIRST GIVEN NAME Günter	SECOND GIVEN NAME
0	RESIDENCE & CITIZENSHIP	CITY D-82054 SAUERLACH	STATE OR FOREIGN COUNTRY GERMANY	COUNTRY OF CITIZENSHIP GERMAN
2	POST OFFICE ADDRESS	POST OFFICE ADDRESS WALLBERGSTRASSE 18D	CITY D-82054 SAUERLACH	STATE & ZIP CODE/COUNTRY GERMANY
2	FULL NAME OF INVENTOR	FAMILY NAME FÜRSICH	FIRST GIVEN NAME Manfred	SECOND GIVEN NAME
0	RESIDENCE & CITIZENSHIP	CITY D-82024 TAUFKIRCHEN	STATE OR FOREIGN COUNTRY GERMANY	COUNTRY OF CITIZENSHIP GERMAN
3	POST OFFICE ADDRESS	POST OFFICE ADDRESS HAINBUCHENSTRASSE 53	CITY D-82024 TAUFKIRCHEN	STATE & ZIP CODE/COUNTRY GERMANY

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

SIGNATURE OF INVENTOR 201	SIGNATURE OF INVENTOR 202	SIGNATURE OF INVENTOR 203
Wolfgang Keupp	Günter Findeis	Manfred Fürsich
DATE 15. March 2000	DATE 20. March 2000	DATE 15. March 2000

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY (Includes Reference to PCT International Applications)	ATTORNEY DOCKET NUMBER 1950/0G777

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed for and which a patent is sought on the invention entitled:

DEVICE AND METHOD FOR DETERMINING IMAGE MODIFICATION VALUES

the specification of which (check only one item below):

[ ] is attached hereto.

[ ] was filed as United States application

Serial No. _____

on _____

and was amended

on _____ (if applicable).

[X] was filed as PCT international application

Number PCT/EP98/07385

on November 17, 1998

and was amended under PCT Article 19

on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:

COUNTRY (If PCT indicate PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U.S.C. 119
GERMANY	197 51 465.0	20 November 1997	[X] YES [ ] NO
PCT	PCT/EP98/07385	17 November 1998	[ ] YES [X] NO
			[ ] YES [ ] NO
			[ ] YES [ ] NO

US

Combined Declaration for Patent Application and Power of Attorney (Continued)
(Includes Reference to PCT International Applications)

ATTY'S DOCKET NUMBER: 1950/0G777

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code §112. I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:

U.S APPLICATIONS		STATUS (Check one)		
U.S APPLICATION NUMBER	U.S. FILINGIDATE	PATENTED	PENDING	ABANDONED

PCT APPLICATIONS DESIGNATING THE U.S.					
PCT APPLICATION NO	PCT FILING DATE	U.S SERIAL NUMBER ASSIGNED (if any)			

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. Gordon D. Coplein #19,165, William F. Dudine, Jr. #20,569, Michael J. Sweedler #19,937, S. Peter Ludwig #25,351, Paul Fields #20,298, Joseph B. Lerch #26,936, Melvin C. Garner #26,272, Ethan Horwitz #27,646, Beverly B. Goodwin #28,417, Adda C. Gogoris #29,714, Martin E. Goldstein #20,869, Bert J. Lewen 19,407, Henry Sternberg #22,408, Peter C. Schechter #31,662, Robert Schaffer #31,194, Robert C. Sullivan, Jr. #30,499, and Joseph R. Robinson #33,448, Chista Hildebrand #34,953

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2	POST OFFICE ADDRESS	POST OFFICE ADDRESS: WALLBERGSTRASSE 18D	CITY: D-82054 SAUERLACH	STATE & ZIP CODE/COUNTRY: GERMANY
2	FULL NAME OF INVENTOR	FAMILY NAME: FÜRSICH 3-00	FIRST GIVEN NAME: Manfred	SECOND GIVEN NAME
0	RESIDENCE & CITIZENSHIP	CITY: D-82024 TAUFKIRCHEN DEX	STATE OR FOREIGN COUNTRY: GERMANY	COUNTRY OF CITIZENSHIP: GERMAN
3	POST OFFICE ADDRESS	POST OFFICE ADDRESS: HAINBUCHENSTRASSE 53	CITY: D-82024 TAUFKIRCHEN	STATE & ZIP CODE/COUNTRY: GERMANY

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

SIGNATURE OF INVENTOR 201	SIGNATURE OF INVENTOR 202	SIGNATURE OF INVENTOR 203
	Günter Findeis	Manfred Fürsich
DATE 19-06-2000	DATE 16-06-2000	DATE 27-06-2000

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